

Appendix A1

Supplementary: Analysis of Accuracy Scores

Experiment 1 (L1)

Target phrases were analysed only if the corresponding prime phrase was judged correctly leading to the exclusion of 4.92% of the data. Accuracy for the remaining targets was approaching ceiling (overall accuracy rate: 96.8%) indicating that participants had no problems performing the task. Mean accuracy scores for each of the conditions are summarised in Table 1 and Figure 1A. For further analysis, a generalised linear mixed effects model with accuracy as a bimodal dependent variable was fit (final model structure: Accuracy ~ Functional.Relation*LexicalRepetition*Target.Form*Language + (1 | Item) + (1 + T.Form + Functional.Relation | Participant)).

Table 1. *Experiment 1: Accuracy for Responses to Targets in % (SD)*

	Lexical Repetition				<i>Mean</i>
	Different verbs		Same verb		
	Inflected	Participle	Inflected	Participle	
Same grammatical function	97.3 (16.3)	95.5 (20.8)	98.9 (10.4)	99.2 (9.0)	97.7
Changed grammatical function	94.7 (22.4)	96.4 (18.7)	95.7 (20.3)	97.0 (17.1)	96.0

Results revealed significant effects of Functional.Relation ($\text{Chi}^2(1)=9.42$, $p=.002$) and Lexical.Repetition ($\text{Chi}^2(1)=10.41$, $p=.001$). However, the presence of a significant interaction of the two factors ($\text{Chi}^2(1)=5.40$, $p=.020$) indicated that the influence of both factors cannot be interpreted independently from each other. The interaction was resolved by computing pairwise-contrasts (with Tukey correction for accumulated alpha error). Results indicate that there were no significant differences in the conditions with non-identical verbs in prime and target (96.4% for same vs. 95.6% for different functions). In contrast, if the same verb appeared in prime and target, then more errors were made if the grammatical context changed between prime and target (96.4% correct) than when it was identical (99.1% correct). In sum, both the repetition of the lexical verb and repetition of the same grammatical function in prime and target improved accuracy of responses. The contrast between identical and changed grammatical contexts was only significant if the same lexical verb appeared in prime and target. No statistical influence of Target.Form (inflected vs. participle) was observed. However, it is important to note that given the very small numerical differences in the light of the ceiling overall accuracy, results of accuracy rates must be interpreted with extreme caution.

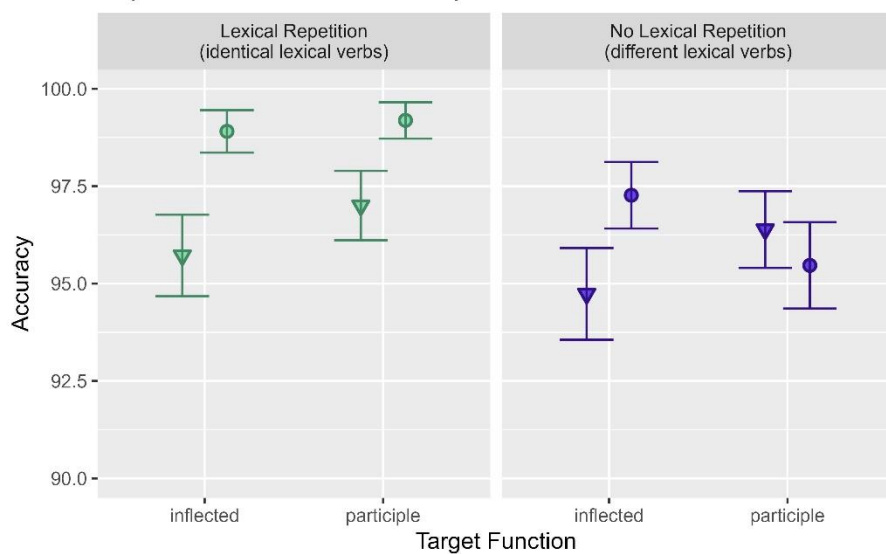
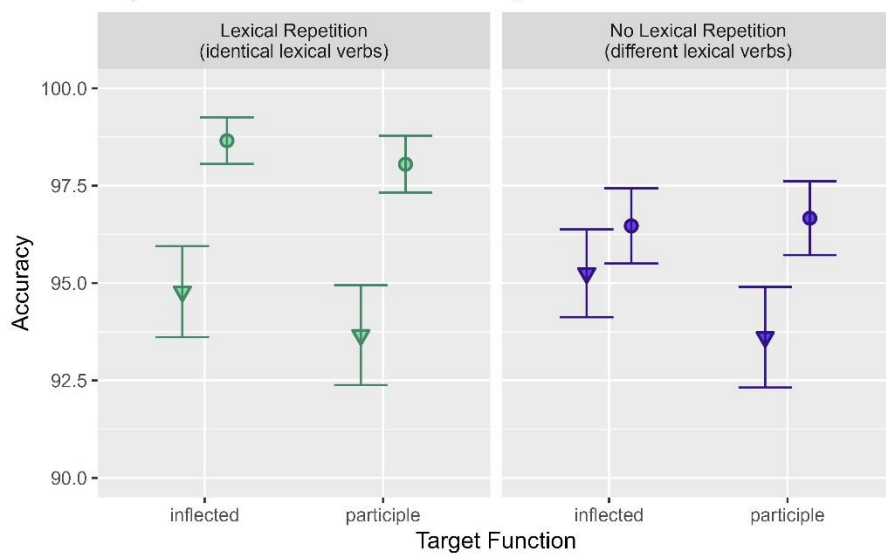
Experiment 2 (L2)

Similar to Experiment 1, overall accuracy was very high (95.9%) indicating that also non-native participants had no problems performing the task. Mean accuracy scores for each of the conditions are summarised in Table 2 and Figure 1B. Results of a generalised linear mixed effects model with accuracy as a bimodal dependent variable (final model structure: Accuracy ~ Functional.Relation*Lexical.Repetition*Target.Form*Language + (1 | Item) + (1 + T.Form + Functional.Relation | Participant)) revealed a significant main effect of Functional.Relation ($\chi^2(1)=12.92$, $p<.001$). In contrast to Experiment 1, the influence of Lexical.Repetition was only a statistical trend ($\chi^2(1)=2.94$, $p=.086$). Also, the interaction of Functional.Relation and Lexical.Repetition was only marginally significant ($\chi^2(1)=3.74$, $p=.053$).

Table 2. *Experiment 2: Accuracy for Responses to Targets in % (SD)*

	Lexical Repetition				<i>Mean</i>
	Different verbs		Same verb		
	Inflected	Participle	Inflected	Participle	
Same grammatical function	96.5 (18.5)	96.7 (18.0)	98.7 (11.5)	98.1 (13.8)	97.5
Changed grammatical function	95.3 (21.3)	93.6 (24.5)	94.8 (22.3)	93.7 (24.4)	94.4

Thus, as also indicated in Figure 1, the pattern of accuracy scores was numerically similar to the one observed for L1 participants. Subsequent analysis of differences between conditions of the marginal interaction revealed that differences between identical and changed grammatical functions of prime and target were statistically significant only if the verb was repeated ($p=.002$), but not if prime and target contained different verbs ($p=.251$). Generally, higher accuracy was observed if the same grammatical function was present in prime and target. This difference was more pronounced when the lexical verb was also repeated in prime and target, but statistical evidence for this effect was much weaker than in L1. As already mentioned, this is not surprising given the over-all relatively high accuracy scores (ceiling) and the higher variation among L2 participants. Therefore, results of accuracy scores must be interpreted with caution.

Figure 1. *Results Experiment 1 & 2 – Accuracy***A** Experiment 1 - Native Participants**B** Experiment 2 - Non-Native Participants

Functional Alternation
(P-T Formal Relation)

- ▽ Changed = Function in Target Different from Prime
- Same = Function in Target Identical with Prime